UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,557	11/07/2003	Kang Soo Seo	1740-000026/US	8241

30593 7590 07/10/2008

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER	
FINDLEY, CHRISTOPHER G	
ART UNIT	PAPER NUMBER
2621	
MAIL DATE	DELIVERY MODE
07/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/702,557	SEO ET AL.	
	Examiner	Art Unit	
	CHRISTOPHER FINDLEY	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/17/2008, 4/28/2008, 5/21/2008, and 6/20/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Examiner notes that claims 31 and 32 have been added via the amendment and RCE filed 4/17/2008.

Response to Arguments

2. Applicant's arguments filed 4/17/2008 have been fully considered but they are not persuasive.

3. Re claim 1, the Applicant contends that Kaneshige fails to teach or suggest an information file for each cell in the DVD. However, the Examiner respectfully disagrees. Kaneshige discloses that the video title set information (VTSI) section of the disc contains a video title set menu cell address table, in which the starting and ending address of each cell comprising the video title set menu and the like are described (Kaneshige: column 15, lines 53-56).

4. Re claim 1, the Applicant also contends that Kaneshige fails to teach or suggest each information file for each cell having a map and that map providing presentation time information to address information for the associated clip file. However, the Examiner respectfully disagrees. Kaneshige discloses a cell playback information table (Kaneshige: Fig. 28, C_PBIT), wherein the cell playback information table includes C_FVOBU_SA and C_ILVU_EA values for each entry (Kaneshige: Fig. 29), and the C_FVOBU_SA and C_ILVU_EA values indicate start and end addresses for cells in the program chain for playing back the cells (Kaneshige: column 17, lines 11-13 and 23-29).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-3, and 12-19, 22, 25, 28, and 31-32 are rejected under 35 U.S.C. 102(a) as being anticipated by Kaneshige et al. (US 6360055 B1).

Re **claim 1**, Kaneshige discloses a reproducing apparatus that both records video data onto and reproduces video data from a computer readable medium having a data structure for managing reproduction of video data having at least one reproduction path video data recorded on the recording medium (Kaneshige: column 1, line 61, through column 2, line 7), comprising: a data area for storing clip files of at least a video data stream, each clip file associated with one of a portion common to the reproduction paths and a portion specific to a particular reproduction path among the reproduction paths of the video data (Kaneshige: Figs. 9A and 9B); and a management area, separated from the data area (Kaneshige: Fig. 26, video title set information (VTSI) section separate from video object sets), for storing management information for managing reproduction of the video data (Kaneshige: column 15, lines 27-34), the management information including an information file associated with each clip file (Kaneshige: column 15, lines 53-56), each information file for providing a map for the associated clip file (Kaneshige: Fig. 28; column 16, lines 21-27), each map for mapping presentation time information to address information for the associated clip file

(Kaneshige: Fig. 28; column 16, line 21, through column 17, line 13; Fig. 28, cell playback information table C_PBIT; Fig. 29, the cell playback information table includes C_FVOBU_SA and C_ILVU_EA values for each entry; column 17, lines 11-13 and 23-29, the C_FVOBU_SA and C_ILVU_EA values indicate start and end addresses for cells in the program chain for playing back the cells).

Re **claim 2**, Kaneshige discloses that the clip files are interleaved (Kaneshige: Figs. 9A and 9B).

Re **claim 3**, Kaneshige discloses that the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions (Kaneshige: Figs. 9A and 9B).

Claim 12 is the corresponding recording method implemented by the apparatus and computer readable medium of claim 1, and, therefore, has been analyzed and rejected with respect to claim 1 above.

Claim 13 is the corresponding reproducing method implemented by the apparatus and computer readable medium of claim 1, and, therefore, has been analyzed and rejected with respect to claim 1 above.

Re **claim 14**, Kaneshige discloses an apparatus for recording a data structure for managing reproduction of video data having at least one reproduction path video data on a recording medium, comprising: an optical recording unit configured to record data on the recording medium (Kaneshige: Fig. 14, pickup driver 104); an encoder configured to encode at least video data having at least one reproduction path

(Kaneshige: column 4, lines 23-52); and a controller, coupled to the optical recording unit, configured to control the optical recording unit to record clip files of at least video data output from the encoder in a data area of the recording medium (Kaneshige: Fig. 14, system controller 204), each clip file associated with one of a portion common to the reproduction paths and a portion specific to a particular reproduction path among the reproduction paths (Kaneshige: column 4, lines 23-52; Figs. 9A and 9B), the controller configured to control the optical recording unit to record management information in a management area separate from the data area (Kaneshige: Fig. 26, video title set information (VTSI) section separate from video object sets), the management information for managing reproduction of the video data (Kaneshige: column 15, lines 27-34), the management information including an information file associated with each clip file (Kaneshige: column 15, lines 53-56), each information file for providing a map for the associated clip file (Kaneshige: Fig. 28; column 16, lines 21-27), each map for mapping presentation time information to address information for the associated clip file (Kaneshige: Fig. 28; column 16, line 21, through column 17, line 13; Fig. 28, cell playback information table C_PBIT; Fig. 29, the cell playback information table includes C_FVOBU_SA and C_ILVU_EA values for each entry; column 17, lines 11-13 and 23-29, the C_FVOBU_SA and C_ILVU_EA values indicate start and end addresses for cells in the program chain for playing back the cells).

Re **claim 15**, Kaneshige discloses an apparatus for reproducing a data structure for managing reproduction of video data having at least one reproduction path recorded on a recording medium, comprising: an optical reproducing unit configured to reproduce

data recorded on the recording medium (Kaneshige: Fig. 14, pickup driver 104); a controller, coupled to the optical reproducing unit (Kaneshige: Fig. 14, system controller 204), configured to control the optical reproducing unit to reproduce clip files of at least video data from the recording medium (Kaneshige: column 4, lines 23-52), each clip file associated with one of a portion common to the reproduction paths and a portion specific to a particular reproduction path among the reproduction paths (Kaneshige: column 4, lines 23-52; Figs. 9A and 9B), the controller configured to control the optical reproducing unit to reproduce management information for managing reproduction of the video data from a management area of the recording medium, the management area being separate from the data area (Kaneshige: Fig. 26, video title set information (VTSI) section separate from video object sets), the management information including an information file associated with each clip file (Kaneshige: column 15, lines 53-56), each information file for providing a map for the associated clip file (Kaneshige: Fig. 28; column 16, lines 21-27), each map for mapping presentation time information to address information for the associated clip file (Kaneshige: Fig. 28; column 16, line 21, through column 17, line 13; Fig. 28, cell playback information table C_PBIT; Fig. 29, the cell playback information table includes C_FVOBU_SA and C_ILVU_EA values for each entry; column 17, lines 11-13 and 23-29, the C_FVOBU_SA and C_ILVU_EA values indicate start and end addresses for cells in the program chain for playing back the cells).

Re **claim 16**, Kaneshige discloses that only one clip File is associated with each particular portion representing a same time period of the video data stream (Kaneshige: Figs. 3B and 6; column 7, lines 48-57).

Re **claim 17**, Kaneshige discloses that the video data stream is represented by packets (Kaneshige: Fig. 31); and each map maps presentation time stamps to packet addresses (Kaneshige: Fig. 28; column 17, lines 7-13, the presentation order correlates to entry points).

Claim 18 has been analyzed and rejected with respect to claim 17 above.

Claim 19 has been analyzed and rejected with respect to claim 3 above.

Claim 22 has been analyzed and rejected with respect to claim 3 above.

Claim 25 has been analyzed and rejected with respect to claim 3 above.

Claim 28 has been analyzed and rejected with respect to claim 3 above.

Re **claim 31**, Kaneshige discloses a playlist directory area for storing a plurality of playlist files, each playlist file for identifying the common reproduction path portions and the particular reproduction path portions to reproduce (Kaneshige: column 15, lines 27-34).

Re **claim 32**, Kaneshige discloses that the playlist file includes at least one indicator for indicating a reproduction order of the common and particular reproduction path portions (Kaneshige: column 16, lines 21-27).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 4-11, 20, 21, 23, 24, 26, 27, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneshige et al. (US 6360055 B1) in view of Inoshita et al. (US 7024102 B1).

Re **claim 4**, Kaneshige discloses a majority of the features of claim 4 as discussed above concerning claims 1 and 2, but does not specifically disclose that the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files. However, Inoshita discloses an image data reproducing apparatus in which image data is reproduced from a computer readable medium, which stores multiple camera angles (Inoshita: Fig. 9) wherein all video objects are the same size (Inoshita: column 10, lines 52-56) and a buffer is managed to prevent either overflow or underflow (Inoshita: column 5, lines 45-54). Since both Kaneshige and Inoshita relate to reproducing image data stored on a disc, where the video objects (or cells) are interleaved from multiple camera angles, one of ordinary skill in the art at the time of the invention would have found it obvious to combine their teachings in order to reproduce multiple camera angles simultaneously for enhanced viewing (Inoshita: column 2, lines 27-32). The apparatus of Kaneshige, now implemented in conjunction with the apparatus of Inoshita, has all of the features of claim 4.

Re **claim 5**, arguments analogous to those presented for claim 4 are applicable to claim 5, and, therefore, claim 5 has been analyzed and rejected with respect to claim 4 above.

Re **claim 6**, the apparatus of Kaneshige, now implemented in conjunction with the apparatus of Inoshita, discloses that more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files (Inoshita: column 10, lines 52-56, all of the video object blocks are the same size, so when the alternate angle path exceeds the size of one video object block, the path contains more than one video object block), as in the claim.

Re **claim 7**, arguments analogous to those presented for claim 4 are applicable to claim 7, and, therefore, claim 7 has been analyzed and rejected with respect to claim 4 above.

Re **claim 8**, arguments analogous to those presented for claim 6 are applicable to claim 8, and, therefore, claim 8 has been analyzed and rejected with respect to claim 6 above.

Re **claim 9**, arguments analogous to those presented for claim 4 are applicable to claim 9, and, therefore, claim 9 has been analyzed and rejected with respect to claim 4 above.

Re **claim 10**, arguments analogous to those presented for claim 5 are applicable to claim 10, and, therefore, claim 10 has been analyzed and rejected with respect to claim 5 above.

Re **claim 11**, arguments analogous to those presented for claim 6 are applicable to claim 11, and, therefore, claim 11 has been analyzed and rejected with respect to claim 6 above.

Claim 20 has been analyzed and rejected with respect to claim 5 above.

Claim 21 has been analyzed and rejected with respect to claim 4 above.

Claim 23 has been analyzed and rejected with respect to claim 5 above.

Claim 24 has been analyzed and rejected with respect to claim 4 above.

Claim 26 has been analyzed and rejected with respect to claim 5 above.

Claim 27 has been analyzed and rejected with respect to claim 4 above.

Claim 29 has been analyzed and rejected with respect to claim 5 above.

Claim 30 has been analyzed and rejected with respect to claim 4 above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a. Information processing apparatus and method, recorded medium, and program

Kato et al. (US 20020150383 A1)

b. Apparatus, method, and recording medium implementing audio gap information for an audio presentation discontinuous period

Okada et al. (US 20020031336 A1)

c. Systems and methods with error resilience in enhancement layer bitstream of scalable video coding

Zhang et al. (US 20020021761 A1)

d. Multiangle block reproduction system

Nakai et al. (US 5999698 A)

e. Multi-scene recording medium and apparatus for reproducing data therefrom

Hirayama et al. (US 5732185 A)

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER FINDLEY whose telephone number is (571)270-1199. The examiner can normally be reached on Monday through Friday, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621
/Christopher Findley/